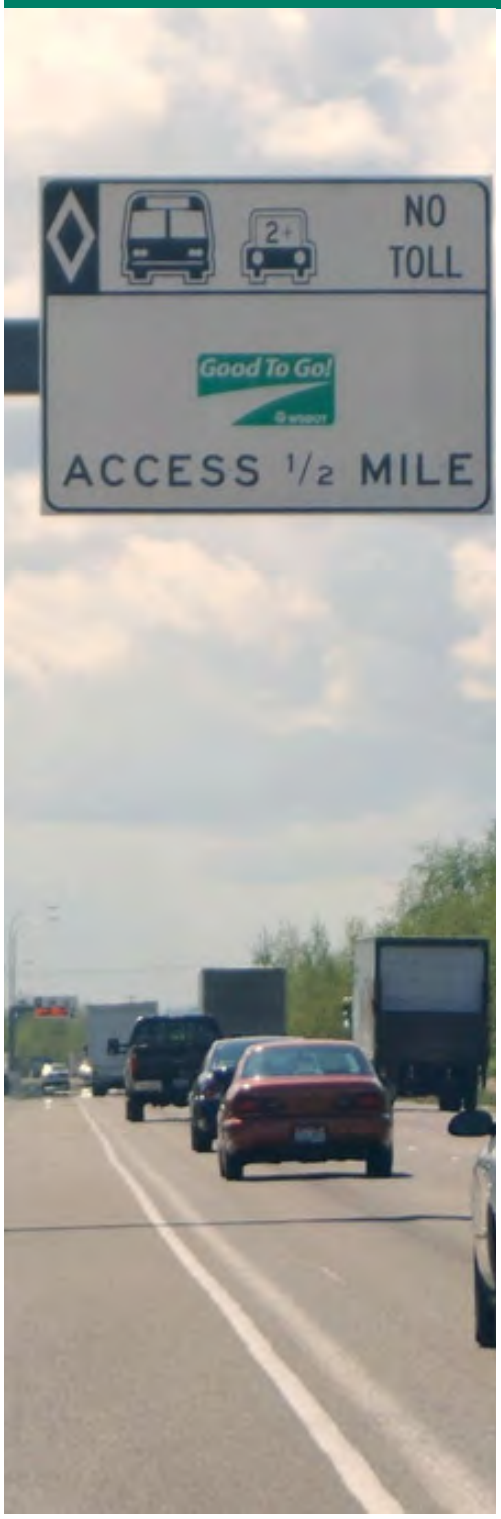
Washington State Department of Transportation

SR 167 HOT Lane Extension



Application for the FY 2013 TIGER Discretionary Grants Program

Highway Project

State Route 167

8th Street East Vicinity to South 277th Street Vicinity
Northbound & Southbound HOT Lane Extension

Submitted to:

U.S. Department of Transportation
TIGER Discretionary Grants Program
www.dot.gov/tiger

Submitted by:

Washington State Department of Transportation
310 Maple Park Avenue SE
PO Box 47300
Olympia, WA 98504-7300

Table of Contents

Appendices:

Executive Summary

SR 167/8th Street East Vicinity to South 277th Street Vicinity – Northbound and Southbound HOT Lane Extension project

The Washington State Department of Transportation (WSDOT) is seeking $17 million to complete the funding needed to add an additional lane in each direction and extend the existing High Occupancy Toll (HOT) Lanes system on SR 167 in the Green River Valley in Washington State. Extending the successful SR 167 HOT lanes to nearly 15 miles in each direction will add additional capacity and manage traffic to benefit freight, transit and commuters. WSDOT has already secured $82.3 million in State funds, providing an 83 percent match to this $99.3 million project.

This project is ready for construction as right of way acquisition and NEPA environmental documentation review are complete. Final design-build contracting is underway. WSDOT can advertise this project for bids by February 24, 2014 and complete construction by fall 2016. The SR 167 HOT lanes extension would mark a major step in completing a 40-mile system of managed lanes for the I-405/SR 167 Corridor.

The SR 167 HOT Lanes are in use today and saving people time and money.

- ✓ **State of Good Repair:** Uses innovative tolling technology to provide congestion relief and an additional travel option to thousands of residents who depend on SR 167 every day to access major job centers in Puget Sound.
- ✓ **Economic Competitiveness and Benefit Cost:** Provides a benefit-cost ratio of 3.63 (3%) and reduces travel times on a critical freight corridor by 2,300 hours each day. This equates to nearly $14 million travel time savings in the first year alone. The project generates 1,180 job-years.
- ✓ **Livability:** Provides sustainable traffic management well into the future and increased mobility through dependable transit operations and safe bike and pedestrian access.
- ✓ **Environmental Sustainability:** Reduces greenhouse gas emissions by more than 941,600 pounds per year by improving travel speeds.
- ✓ **Safety:** Reduces crash rates in this area by 25 percent by reducing congestion and providing new capacity. This crash rate reduction results in a net present value of $21.7 million in savings based on USDOT Economic Value of a Statistical Life data.
- ✓ **Project readiness:** This project is ready for advertisement on Feb. 24, 2014.
- ✓ **Innovation:** This project uses all electronic tolling and dynamic pricing to reduce congestion.
- ✓ **Partnerships:** This project leverages more than 30 partnerships with local cities, counties, and agencies.

I. Project Description

WSDOT is seeking $17 million to complete the funding needed to add an additional lane in each direction and extend the successful SR 167 High Occupancy Toll (HOT) Lanes to nearly 15 miles in each direction (see Exhibit 1), adding capacity for freight, transit, and commuters. The SR 167/8th Street East Vicinity to South 277th Street Vicinity – Northbound and Southbound HOT Lane Extension project **(SR 167 HOT lane extension)** is located in the Green River Valley (a vital freight hub), touching the cities of Auburn, Algona, and Pacific within King and Pierce Counties in Washington, just south of Seattle.

Exhibit 1: Existing SR 167 project area shown in gray with extension shown in green.

Scope **-** WSDOT will widen SR 167 to add an additional lane in each direction to extend the HOT lane system from nine miles in the southbound direction and 12 miles in the northbound direction to 15 miles in both directions. In the southbound direction the HOT lane extension will occur from where it currently ends today at 37th Street NW to the vicinity of 8th Street East in Pierce County. In the northbound direction, the HOT lane extension will occur from 15th Street SW to 8th Street East.

In addition to the new capacity for the HOT lane extension, the project will add:

- Four new ramp meters at 8th Street East and Ellingson Road
- Two new noise walls
- Fish-passage improvements
- Twenty-one ADA-accessible curb ramps
- Fifteen lane-miles of pavement overlay
- Seismic retrofits for bridges

This extension is critical to regional mobility because of the bottleneck and extreme congestion where the southbound HOT lane ends today, thus impacting the overall efficiency of the HOT lane system. The additional widening to create the six-mile southbound and three-mile northbound HOT lane extension to 8th Street East will pass through several critical interchanges, making for a more logical end point. **This project extends the HOT lanes by a combined nine lane miles in both directions, improves the condition of the existing HOT lanes, and generates added revenue to cover lifecycle maintenance and operations costs in the future.**

Transportation Challenges **-** The SR 167 HOT lane extension project is part of the I-405/SR 167 Corridor, which stretches 40 miles from Puyallup to Lynnwood, forming the only north-south alternate route to I-5 in the urbanized central Puget Sound region. Currently, the corridor serves

940,000 vehicle trips and an estimated 1.1 million person trips per day. Trips are projected to increase to approximately 1.5 million person trips per day in 2030. **Major companies such as Microsoft, Google, Costco, Boeing, and Paccar have strategically located along this corridor**, which also serves major regional retail destinations in Auburn, Kent, Tukwila, Renton, Bellevue, and Lynnwood.

The fast-growing SR 167 corridor area, known as the Green River Valley, has been transformed from farmland to a mix of busy residential, commercial, retail and industrial activity. Between 1980 and 2000, the Green River Valley population grew by 68 percent. By 2030 it is projected to grow another 39 percent. Employment has nearly doubled between 1980 and 2000, with growth projections of another 50 percent, adding 90,000 jobs in the Valley by the year 2030. This increased development has also brought more traffic congestion and collisions. Since 1970, average daily traffic (ADT) in the SR 167 Corridor has increased by 800 percent, from 15,000 vehicles to 116,000 vehicles on an average weekday**.**

The SR 167/I-405 corridor is the second-most heavily traveled corridor in the state, with some areas suffering congestion up to 10 hours a day (at the I-405/SR 167 interchange). This congestion slows both commuters and freight connections accessing major commercial, manufacturing and warehouse facilities. It also hampers business development along the corridor, which continues to create jobs that provide an economic benefit to the Puget Sound Region and the State.

In addition, the Green River Valley has the largest freight distribution facilities in the Puget Sound Region, and the second largest concentration on the West Coast of the United States. Washington State Freight and Goods Transportation System has classified SR 167 as a "T-1 freight route," meaning it carries over 10 million tons per year (Washington's highest classification).

How does this project address these challenges?
To help manage congestion, WSDOT introduced the SR 167 HOT Lanes Project in 2008. Since that time, HOT lane volumes have doubled. HOT lanes provide the sustainable, long-term solution to congestion relief that commuters and businesses have come to rely on, while simultaneously providing a revenue source to maintain roadways. By managing the demand for limited roadway space through HOT lanes, more vehicles and people can choose to move through the corridor faster and more efficiently – freeing up room in the general purpose lanes for freight.

The SR 167 HOT Lanes are in use today and saving people time and money.

The extension of the SR 167 HOT lanes fits into *Vision 2040*, the regional land use planning document produced in 2010 by PSRC, emphasizes completing regional roadway systems, including the I-405/SR 167 corridor. The project will add capacity, create jobs, leverage user fees for accelerating corridor improvements, help maintain the facility, and manage demand for the corridor providing long-term congestion relief.

Washington State is committed to HOT/express toll lanes on SR 167/I-405. In addition to the operating SR 167 HOT lanes, WSDOT now has 17 miles of the 40-mile express toll lanes system under construction for the north half of the I-405 Corridor, from Bellevue to Lynnwood. Additionally the 2012 Washington State Legislature allocated funds for preliminary engineering and right-of-way for critical improvements in the middle of the corridor at the I-405/SR 167 interchange. These improvements will connect the SR 167 HOT lanes to the I-405 Express Toll Lanes. The TIGER grant will allow WSDOT to complete the southernmost end of the corridor on SR 167, **completing a key step towards enhancing the state's economic competitiveness, both nationally and globally, by connecting the state's largest ports to key distribution centers in King and Pierce counties and to Eastern Washington.**

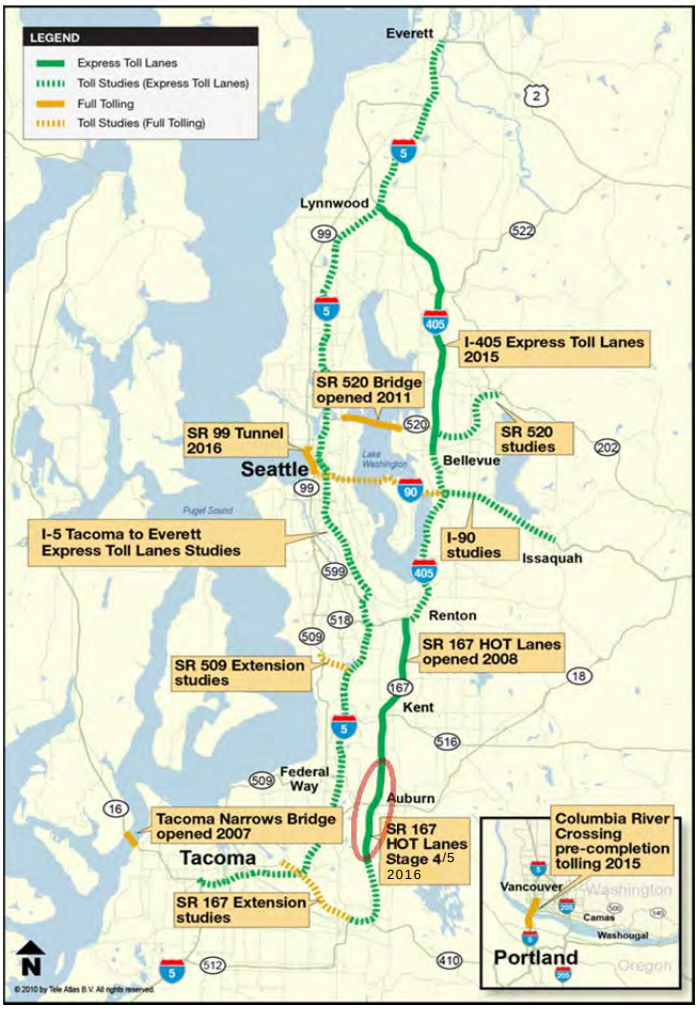
Why tolling in Washington?

- ✓ **Congestion Management** moves more vehicles and people and is sustainable into the future
- ✓ **Revenue Generation** helps build projects
- ✓ **Demand Management** moves optional trips out of the busiest travel times
- ✓ **Environmental Benefit** of reducing greenhouse gases

Part of the State's Strategic Plan. Over the next 30 years, the population in the Puget Sound Region is expected to increase by about 1.7 million and the number of jobs by about 1.2 million over Year 2000 levels. Washington's general purpose lanes, and most of the HOV lanes, are already congested during peak periods, and those peak-periods are becoming longer all the time. **HOT and express toll lanes are a way to operate these highways more efficiently and manage traffic demand with more commute choices** (see Exhibit 2). The SR 167 HOT Lanes Extension project is part of a system-wide plan to implement express toll lanes in the Puget Sound Region, allowing transit and commuters a more reliable trip. HOT lanes allow transit to operate more efficiently creating a more reliable commute choice for residents along SR 167.

Washington State leaders recognized this need and solidified a vision for the I-405/SR 167 Corridor in WSDOT's *Moving Washington* congestion

Exhibit 2: Regional Plan for Express Toll Lanes



management plan, which outlines a balanced approach to manage demand, operate efficiently, and add capacity strategically. Building on the I-405 Corridor Master Plan (2002) and the SR 167 Valley Corridor Plan (2007), *Moving Washington* details transportation solutions for the region's projected population and employment growth, connecting I-405 and SR 167 as a seamless corridor. Within this corridor is Washington's first express toll system, the SR 167 High Occupancy Toll (HOT) Lanes Pilot Project. The long-term vision, adopted by the I-405/SR 167 Executive Advisory Group (a committee made up of corridor mayors and elected officials) during the I-405/SR 167 Corridor Tolling study in 2009, was for the I-405/SR 167 Corridor to expand the HOT lane system to include express toll lanes on I-405 to connect with SR 167 HOT lanes to better manage traffic. The proposed SR 167 8th Street East to South 277th Street Northbound and Southbound HOT Lane Extension project aligns with the *Moving Washington* principles.

II. Project Parties

WSDOT is the applicant on this TIGER Grant application to fund the SR 167 HOT lane extension project. WSDOT is responsible for overseeing the State's highways, ferries, and aviation programs, including planning and administrative activities to support public transportation and rail. Highways and bridges make up the largest portion of Washington's transportation system. WSDOT is responsible for more than 20,000 lane-miles of roadways and ramps, nearly 3,000 vehicular bridges, and 524 other structures. Although the State highway system accounts for less than 11 percent of the total roadway lane-miles, it accounts for more than half – about 56 percent – of vehicles miles traveled.

Corridor plans for SR 167 grew out of decision-making processes that brought together program leads, local partners, and the public. In 2009, the Washington State Legislature directed WSDOT to conduct a traffic and revenue study for adding express toll lanes to I-405, including the expansion of the SR 167 HOT lanes. To help facilitate this study, WSDOT convened the I-405/SR 167 Executive Advisory Group, which includes elected officials from the 13 cities, two counties, FHWA, and three transit agencies along the I-405/SR

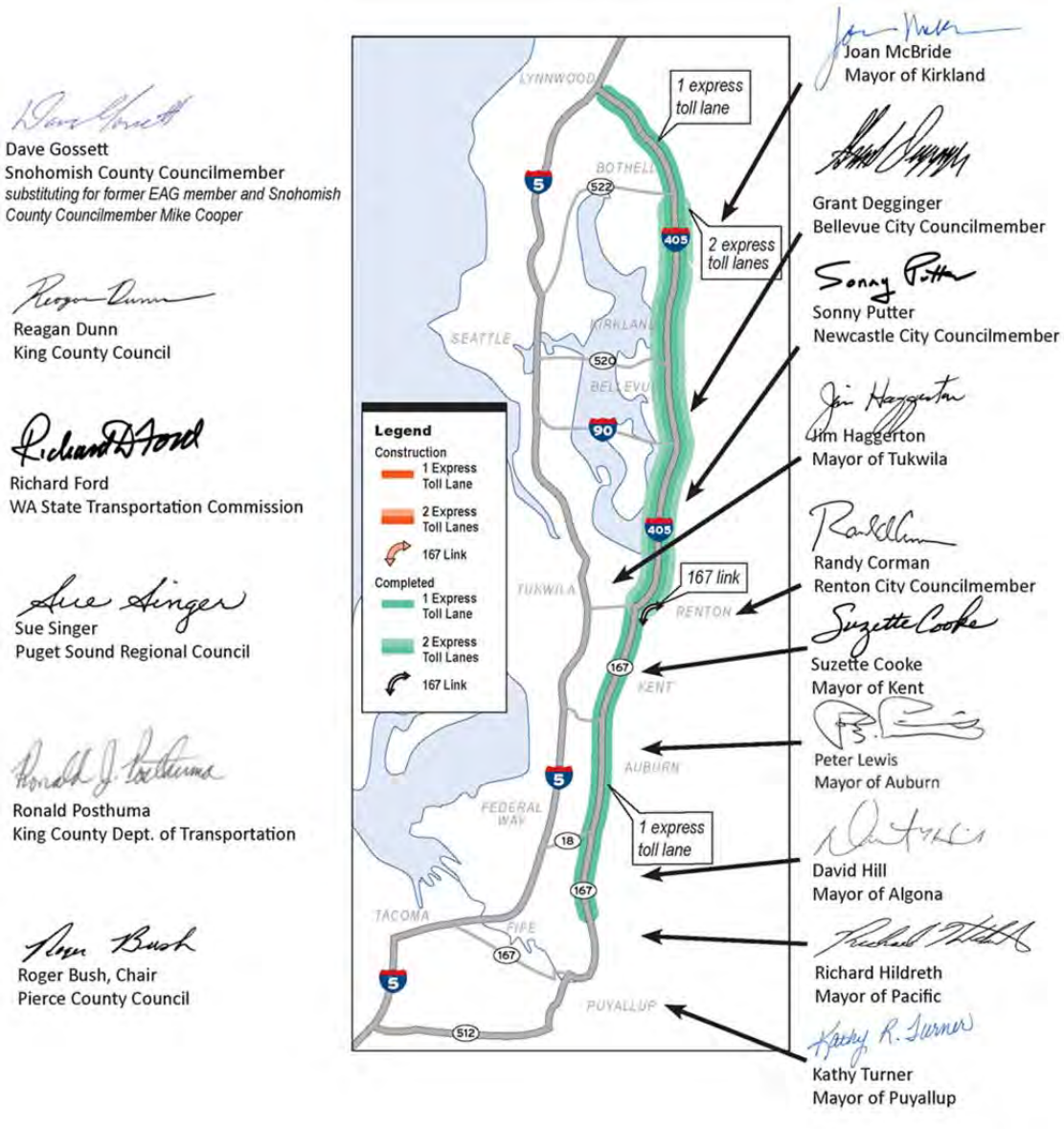
Members of the Executive Advisory Group provide input during an I-405/SR 167 Corridor Tolling Study meeting in October 2009.

167 Corridor. The majority of the Executive Advisory Group support WSDOT's vision for a 40-mile corridor of express toll/HOT lanes on I-405 and SR 167 (see Exhibit 3).

In 2010, WSDOT convened a National Expert Review Panel to review the policy, methodology, phasing, and financing of the 40 mile express toll lane system. The panel found WSDOT's work to be consistent with national best practices. For more information on their report, visit www.wsdot.wa.gov/Tolling/EastsideCorridor/Report.htm.

Today, the Executive Advisory Group continues to provide vision, policy, and oversight for implementing the I-405/SR 167 Corridor projects. (See Appendix B for the interest statement) Letters of support from these stakeholders are included with this application (see Appendix A).

Exhibit 3: Regional Support for Express Toll/HOT Lanes



III. Grant Funds and Sources/Uses of Project Funds

WSDOT used a Cost Estimate Validation Process (CEVP) to verify project costs and risks to both cost and schedule in 2009. The agency updated the construction cost using Cost Risk Assessment (CRA) in 2011 to reflect the current assessment of project conditions and risks. The $17 million TIGER Discretionary Grant funding request, when combined with the State-allocated $82.3 million, will fully fund this project for construction. The State funds will provide 83 percent match to this project. To date, the project has spent $8.5 million on preliminary engineering and right of way acquisition. WSDOT will need $2.6 million to complete final design-build contracting package, leaving $71.2 million remaining for this $88.2 million construction project. The following table (Exhibit 4) illustrates the funding allocation.

Exhibit 4: Project Funding Source by Phase

Project Phase	Secured state funding	TIGER request	Total cost
Preliminary engineering	$8,843,511	$0	**$8,843,511**
Right of way	$2,275,539	$0	**$2,275,539**
Construction	$71,194,564	$17,000,000	**$88,194,564**
Total	**$82,313,614**	**$17,000,000**	**$99,313,614**

IV. Primary Selection Criteria

A. Long-Term Outcomes

In addition to offering SR 167 HOT lane users increased speeds and reliable travel times, the revenue generated from the HOT lanes provides a sustainable funding source for project operations or additional enhancements to the corridor. However, the existing HOT lanes reach a capacity chokepoint at their end point, diminishing their value. By relieving this southbound chokepoint, this HOT lanes extension will improve the efficiency of the entire system. There are currently 9 miles of HOT lanes in the southbound direction and 12 miles in the northbound direction. The proposed HOT lane extension project will add additional capacity by extending the length of the existing HOT lanes to nearly 15 miles in both directions (see exhibit 1).

The benefit cost analysis (BCA) shows that travel time savings and safety benefits result in a benefit cost ratio of at least 3.63 to 1. The BCA was also conducted using a 7 percent discount rate, which resulted in a benefit cost ratio of 2.86.

i. State of Good Repair

- Toll revenue from the HOT lanes helps fund the long-term operation of the highway, minimizing lifecycle costs.

- In addition to the 9.6 miles of new lanes (see Exhibit 5), 21 lane-miles of existing asphalt pavement will be rehabilitated with an overlay. This rehabilitation will repair existing ruts and potholes, providing a smooth surface and extending the useful life of this section of highway for many years. This overlay is consistent with the State's preventative maintenance program. Future maintenance of the corridor will be handled by WSDOT's statewide Maintenance Accountability Program (MAP) and the Capital Programs' Pavement Management System and Bridge Preservation System, both of which are consistently funded for preservation and maintenance.

Exhibit 5: SR 167 HOT lanes extension project area

- The project adds environmental enhancements, including:
  - Building two new noise wall structures
  - Enhancing nearly two acres of wetlands
  - Removing two fish barriers by retrofitting culverts to be fish-passable.
- The project will widen the southbound SR 167 mainline bridge over SR 18 to accommodate the added HOT lane and seismically retrofit the bridge to prevent collapse due to liquefaction.
- The Project will seismically retrofit the northbound SR 167 off-ramp bridge to eastbound SR 18 by using column jacketing.
- The project will install 21 American Disability Act (ADA) accessible curb ramps at the 8th Street East, Ellingson Road, 15th Street SW, and 15th Street NW intersections.
- In addition to the HOT lane benefits, the project will improve system performance by installing four new ramp meters on the on-ramps along the corridor at 8th Street East (northbound and southbound SR 167) and Ellingson Road (northbound and southbound SR 167).

ii. Economic Competitiveness

The Green River Valley has the largest freight distribution facilities in the Puget Sound Region, and the second largest concentration on the West Coast of the United States. SR 167 links the Ports of Seattle and Tacoma with the Green River Valley, serving the region's day-to-day freight needs.

SR 167 Needed for Freight

The ports of Seattle and Tacoma depend on SR 167 for regional and national distribution of their freight. The ports generate 33 percent of regional truck trips on SR 167. Keeping freight moving on SR 167 keeps freight moving into and out of our ports, which boosts U.S. competitiveness against international ports.

Washington State Freight and Goods Transportation System has classified SR 167 as a T-1 freight route. Approximately 50 million tons of freight traveled on SR 167 in

2009, and this number has continued to grow every year. In Washington State, only portions of I-5 carry more freight than SR 167.

SR 167 connects the freight centric Kent and Auburn Valley with the Port of Tacoma and residents to The Boeing Company, a major Puget Sound employer. The Valley Cities Distribution Center is the largest freight warehousing and distribution center in the Puget Sound Region, and the second largest on the West Coast of the United States. This district includes industrial and manufacturing zoned properties in some nine valley cities (Fife, Sumner, Algona, Pacific, Auburn, Kent, Renton and Tukwila) and serves the Ports of Tacoma and Seattle and the region's day-to-day needs shipping and storing freight goods and services.

The daily truck volumes on SR 167 are approximately 10,000 trucks per day, or about 10 percent of all vehicles. Future growth projections for the overall volume of freight trucks entering and leaving the Green River Valley are forecasted to reach as many as 24,000 daily truck trips by 2030. In other words, **total truck volume may double by 2030**.

Extending the HOT lanes will increase capacity on SR 167 by 50 percent. This additional capacity will allow for faster freight movement within the corridor. The majority of truck travel in the corridor occurs during the daytime hours to meet the operating schedules of suppliers and customers. Most trucks are small, local delivery trucks or single tractor-trailers. At the same time, trucks on SR 167 are shifting their travel to outside of the morning and evening peak periods to avoid peak congestion. When possible, freight haulers avoid peak periods by scheduling their travel during off-peak times, but many haulers must drive during the peak period to meet customers' needs. As volumes continue to grow, there will be **fewer opportunities for efficient freight movement during non-peak times each day**.

Our bottom line depends on reliability

Rick is a District Manager at a major industrial firm providing products, services and solutions to enhance quality and comfort in homes and buildings through a variety of maintenance services. His customers count on the reliability of fast service, and the SR 167 HOT lanes make sure his technicians can meet their deadlines. "We have contracted with some of our clients to provide 'demand service' with a very short response time. We can't afford to be late."

In 2005, the Green River Valley was home to 40 percent of the total truck-related distribution areas in the three-county area of the Central Puget Sound region. The connection between this region and the Ports of Tacoma and Seattle is strong, as an estimated 33 percent of all regional truck trips generated by the ports are destined to locations in the Green River Valley.

Job Creation and Near-Term Economic Activity

This project will use the design-build process to deliver the project. This approach will expedite project delivery, save money, and move jobs into the private sector

more quickly. With the TIGER funds, this project will create approximately 1,180 job years. A job year is based on a 2,080 job-hours. Based on a project total of $90,794,564 for preliminary engineering and construction (right of way excluded), the following tables (Exhibits 6 and 7) illustrate the job creation numbers.

Exhibit 6: Short Term Job Creation by Project Phase

Project Phase	Spending by Phase*	Direct Job-Years**	Indirect Job-Years**	Induced Job-Years***	Total Job-Years
PE	$2,600,000	8	8	17	33
RW*	$0	0	0	0	0
CN	$88,194,564	287	287	573	1147
Totals	**$90,794,564**	**295**	**295**	**590**	**1180**

To calculate job creation and economic activity number, WSDOT used multipliers as directed in the Federal Register/Volume 77, No. 20. Per the Executive Office of the President, Council of Economic Advisers (CEA), a job-year is created by every $76,923 in transportation infrastructure spending (or 13,000 job-years per billion dollars of transportation infrastructure spending). The assumption that there are 2080 job-hours per job-year, one-job hour is created for every $36.98 of expenditures. Estimate is calculated using current and future funds. This model does not use prior PE or RW expenditures in the calculation.

** Assumes no jobs created by RW expenditures.*

***Assumes 25% of the job-hour benefits are attributed to "direct project" related activities, and another 25% are attributed to "indirect" project related activities, during project PE and CN phases.*

****Induced job-hours represent the remaining 50% of the job-hour creation benefits attributed to jobs created or preserved in the local, regional or national economy during the project.*

Exhibit 7: Short-term Job Creation by Time Period

Period	Spending 2013 dollars*	Direct, Indirect, and Induced Created Job-Hours**
2013 - Q3	$650,000	17,577
2013 - Q4	$650,000	17,577
2014 - Q1	$650,000	17,577
2014 - Q2	$650,000	17,577
2014 - Q3	$3,043,349	82,297
2014 - Q4	$3,043,349	82,297
2015 - Q1	$5,651,934	152,838
2015 - Q2	$5,651,934	152,838
2015 - Q3	$14,658,600	396,393
2015 - Q4	$14,658,600	396,393
2016 - Q1	$11,993,400	324,321
2016 - Q2	$11,993,400	324,321
2016 - Q3	$7,875,000	212,953
2016 - Q4	$7,875,000	212,953
2017 - Q1	$875,000	23,661
2017 - Q2	$875,000	23,661
2017 - Q3	$0	0
2017 - Q4	$0	0
Total	**$90,794,564**	**2,455,234**

iii. Livability

The extension of the SR 167 HOT lanes fits into *Vision 2040*, the regional land use planning document produced in 2010 by PSRC emphasizes "giving regional funding priority to transportation improvements that serve regional growth centers and regional manufacturing and industrial centers" – the very communities SR 167 serves.

Congestion relief – Although both northbound and southbound SR 167 experience congestion during the peak hours, southbound SR 167 experiences severe traffic congestion in more of the corridor and for longer periods of time because of the bottleneck where the HOT lane currently ends. Southbound travelers experience congestion mostly in the afternoon or evening peak hours, particularly south of the SR 167/SR 18 interchange. **By adding an additional lane in each direction and extending the HOT lanes, drivers will reduce their travel times because they will have access to a more efficient bus system and/or more reliable trip in the HOT lane.**

Support for HOT and Express Toll Lanes
Washington's Prosperity Partnership states that "Businesses will locate where there is a high quality of life, good schools, efficient transportation, affordable housing, and supportive government policies. The region must take steps to remain competitive because if we fail to act, jobs and economic prosperity could pass us by."
http://www.prosperitypartnership.org/about/index.htm.

Congestion on SR 167 has repercussions for local streets. Rather than sitting in traffic on SR 167, motorists use arterials within the cities of Algona, Pacific and Auburn to travel north and south. This added congestion on local city roads, whose purpose is not for through-traffic, reduces mobility and quality of life for residents. Increasing capacity and managing the traffic in the SR 167 HOT lanes will help alleviate this congestion by removing through-traffic from side streets and placing it onto the access-controlled SR 167 where it belongs, making a safer trip. This shift will also allow more space and safer conditions for bicycles and pedestrians on local roads and sidewalks within these cities, improving walkability and allowing residents to choose a mode of transportation that works best for them.

According to WSDOT's Customer Service Center Database, the majority of existing tolled HOT lane trips are billed to homes in the southern, southeastern and eastern portions of the SR 167 corridor, which is where the HOT lane extension is planned. Therefore those who are already using the HOT lanes are likely to experience an even greater benefit. The SR 167 HOT lane extension project will also allow access to more rural areas, such as Bonney Lake and Orting.

Bus Service – This corridor currently has two types of bus service -- express bus routes and local bus routes. Both Sound Transit and King County Metro provide express bus service along the SR 167 corridor to major employment destinations in Seattle, Bellevue, King and Pierce County, and along the eastside of Lake

Washington through 12 separate routes. Seventeen local, fixed routes operate primarily within the SR 167 Corridor. King County Metro operates the majority of these local routes (15), and Pierce Transit operates groupings of routes. However, King County Metro, in particular, has recently made cuts to routes and services because of the economic downturn. Improving operations and reliability of the SR 167 HOT lane will help transit agencies to maintain their routes and may allow them to restore service cuts through increased ridership.

The SR 167 corridor is home to a significant number of park-and-ride lots – large and small, owned and leased – that anchor bus and rail services to major regional destinations. Park-and-ride facilities in the SR 167 corridor are near their useable capacity.

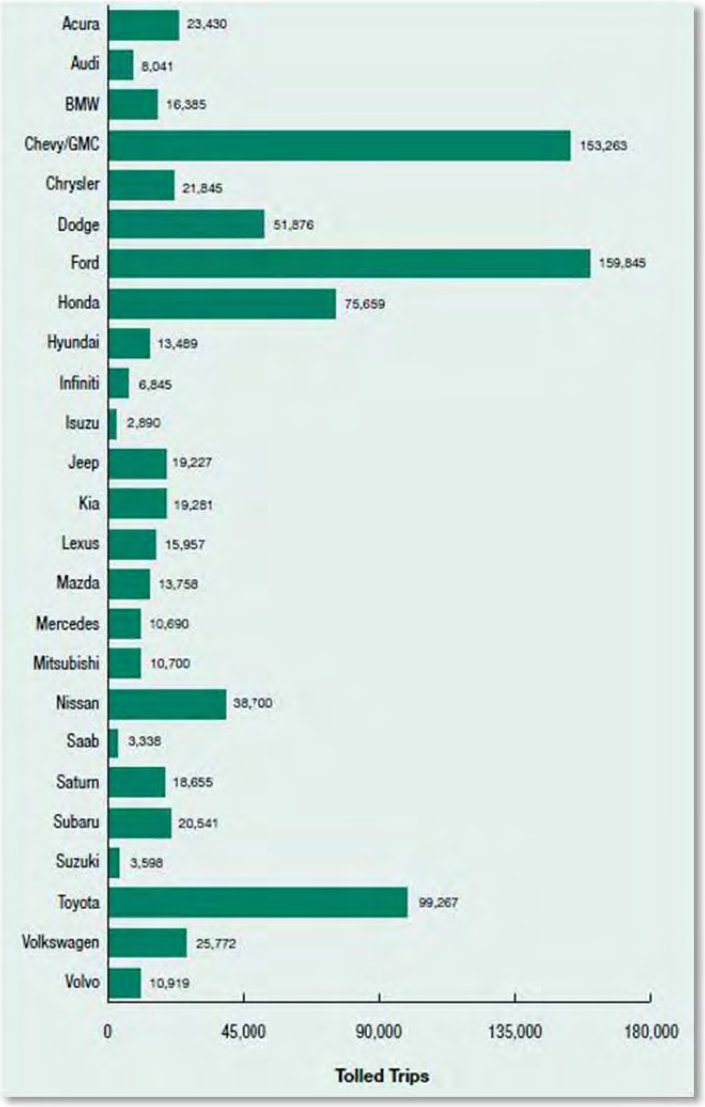
Businesses – WSDOT did an informal web survey in 2010 of commercial *Good To Go!* (WSDOT's toll brand) toll transponder account holders. WSDOT wanted to know if businesses were seeing the value of HOT lanes and if they thought it would be a good idea to extend the HOT lanes for broader service. The results showed that more than half of the survey respondents were very interested in extending the HOT lanes. The majority of respondents said the HOT lanes were helpful to their business.

What do business users have to say about SR 167 HOT lanes?

- *"I don't use the HOT lanes every day, but they save me time when I need to get to a project or meeting on time. If I have a 9 a.m. meeting up north, I use the HOT lanes." – Vadim, Construction Company Owner*
- *"I like the analogy of congestion insurance – we pay auto insurance, health insurance and life insurance. Why not congestion insurance to make sure I can get where I need to be on time." – Ron, Personal Trainer*
- *"HOT lanes are a commodity that we should have the choice to purchase for a more reliable trip." – Todd, Construction Company Owner*

Historically underserved communities – Auburn and the surrounding communities in the Green River Valley have a higher poverty rate than Washington State and the nation. For example, the City of Auburn's poverty rate was 14.9 percent in 2009, as compared to a national rate of 13.2 percent the same year. Extending the SR 167 HOT lanes will improve mobility and transit services for economically disadvantaged populations, non-drivers, senior citizens, and persons with disabilities and will make goods, commodities, and services more readily available. The SR 167 Annual Report shows that HOT lanes are not "Lexus Lanes," the disparaging term that some use to describe HOT lanes. Results from SR 167 show that Lexus drivers account for less than two percent of trips (See Exhibit 8). Drivers of Chevys and Fords use the lane more than anyone else.

Exhibit 8: Tolled trips by vehicle make



Pedestrians and bicyclists – Two major regional trails near the SR 167 Corridor serve pedestrians and bicyclists, both for transportation to key destinations and for recreation.

The Interurban Trail runs parallel to the BNSF and Union Pacific Railroad rail tracks from Pacific in the south to Tukwila in the north. The 14.7-mile trail runs roughly parallel to SR 167, passing the highway at one point, just north of East James Street in Kent. The paved trail's nearly straight, north-south orientation and separation from motorized traffic make it popular with bike commuters to major employment centers in Auburn, Kent, Tukwila, Renton, and Seattle. This project will benefit the bicyclists and pedestrians who use this trail to get to transit centers within the corridor.

The Green River Trail, which crosses under SR 167 just south of SR 516 in Kent, starts in the south end at Auburn Narrows Park along the Green River and continues north to

Cecil Moses Park near the southern boundary of Seattle. The winding 19.6-mile trail follows the course of the river, linking industrial lands and office complexes with parks and neighborhoods. It also intersects in two places with the Interurban Trail. Its location has proven popular with recreational users and work commuters alike.

The SR 167 project will add new ADA compliant sidewalks to both sides of 8th Street East and Ellingson Road, where each street crosses beneath SR 167. This sidewalk will provide pedestrian's access to businesses and homes on the west side of SR 167 with commercial retail and restaurants on the east side of SR 167. Currently, pedestrians use the shoulder to cross beneath SR 167, as there is no sidewalk. Construction of a raised curb and sidewalk will provide a safe way for pedestrians to cross SR 167.

Collisions – The project is projected to provide a 25% collision reduction. The primary reduction is related to lower rates of congestion-related and side swipe collisions.

iv. Environmental Sustainability

The SR 167 HOT Lane Extension project will improve the environment where feasible. Environmental improvements are outlined below and include stormwater retrofits, new noise walls, improved air quality and reduced greenhouse gases, retrofit fish culverts, and improve a flood plain storage are.

In addition to the above mentioned improvements, the SR 167 corridor avoidance and minimization strategies include:

- **Reducing the project's overall footprint.** Where fill-widening is required, the design team looks to build retaining walls rather than sloped, fill prisms to reduce the corridor's overall footprint. Retaining walls reduce impacts if the road prism slope extends further than the width of the retaining wall.
- Shifting the alignment to avoid wildlife habitat wherever feasible. This included areas where highway improvements have a potential negative impact on **habitat connectivity**.

Stormwater retrofits associated with the I-405 and SR 167 projects have resulted in improved water quality in streams, lakes, and wetlands. WSDOT's goal is to bring the entire I-405/SR 167 corridor up to current stormwater standards for water quality treatment and detention. The new stormwater treatment wetlands along the corridor not only help to clean water, but they also reduce downstream flooding and provide for **fish-passable flow**. In addition, they also have a side benefit of providing wildlife habitat in this very urbanized corridor.

The project team, with a strong sustainability goal in mind, elected to mitigate wetland impacts on site for this project. By using an already impacted site, the team is helping to eliminate impacts to an entirely new location, and improving the

functionality of the habitat within the project limits.

In addition, two culverts within the project area offer opportunities to improve fish movement through the area. Although these culverts are not required to be modified by this project, the project team has elected to make improvements that will allow fish to pass more easily from one side of the highway to the other.

New noise walls will be built. This project will install two noise walls, one south of 1st Avenue North and one north of 1st Avenue North, both on the northbound side of SR 167. These walls will visually shield residents in the City of Algona and protect them from hearing highway noise.

View from SR 167 to the proposed noise wall protected neighborhood.

Air quality and energy consumption will improve with more efficient traffic operations. The I-405/SR 167 Corridor air quality analysis demonstrates that the projects will not cause air pollution concentrations exceeding air quality standards. In addition, the program is part of the Puget Sound Regional Council's (PSRC's) Metropolitan Transportation Plan and the Transportation Improvement Plan and designated as a program that conforms to the Puget Sound Region's Air Quality Maintenance Plans (see www.pscleanair.org/). Continued investment in congestion-relief improvements will prevent the region from falling back into non-attainment.

The project reduces greenhouse gas emissions. The SR 167 HOT Lanes extension project will help prevent more than 556,200 pounds per year of harmful greenhouse gases from reaching our atmosphere. This project will therefore contribute to the state's overall goal of reducing its carbon footprint.

The project maintains, protects, or enhances the environment. As part of the project, WSDOT will improve a floodplain storage area in Mill Creek. The habitat improvements will provide important floodplain connectivity and off-channel habitat, thereby providing a beneficial effect, especially during high flow. WSDOT will disturb only the minimum amount of roadside vegetation necessary to complete the project. Roadside areas disturbed by construction will be restored with indigenous plantings once the work is complete.

The connection of the floodplain storage area to Mill Creek will provide approximately **six acres of off-channel habitat**, increase floodplain connectivity in the Mill Creek sub-basin, and improve the primary constituent elements (PCEs) in the rearing sites for juvenile Chinook salmon.

WSDOT is committed to maintaining the existing temperature regime for aquatic resources. The team has designed the floodplain storage area to avoid removal of

existing large trees that provide shade. Additionally, crews will plant areas adjacent to the floodplain storage area with native trees and shrubs to provide additional shade to the site. WSDOT expects that the high groundwater table will provide cool water to the site that will help to moderate water temperatures in the floodplain storage area.

The project will improve riparian habitat in areas where in-water work or other construction activities will occur. Crews will replant these areas with native riparian vegetation to improve habitat and provide stream shading where vegetation will be cleared. The extent of the clearing effects will determine the extent of riparian planting.

The project will retrofit two existing culverts to provide improved fish passage, water quality and treatment, and aquatic habitat in the project area. The project will improve water quality and water bodies through implementation of stormwater best management practices (BMPs) that will protect aquatic life by limiting pollutants entering water bodies.

v. Safety

During the past six years, the proposed project area averaged 136 accidents per year. Seventy-eight percent of these accidents were congestion related (rear-end or sideswipes). By reducing congestion and providing new capacity through the area, the team projects a 25 percent reduction in collision rates. This collision rate reduction results in a net present value of $21.7 million in savings based on USDOT Economic Value of a Statistical Life data.

Incident response. An important component of HOT lanes operations is the inclusion of incident response team (IRT) vehicles along SR 167 to assist drivers (e.g. change flat tires, supply emergency gas, etc.) and clear blocking vehicles.

The revenue from the HOT lanes helps to fund more IRT vehicles along the corridor, the HOT lanes project enabled IRT to respond to incidents more quickly. The greater number of IRT vehicles have reduced the congestion and delay caused by incidents and helped to keep all lanes moving.

The incident response team helps keep incidents clear on SR 167.

vi. Project Readiness

a. Technical Feasibility

This project is an extension of the existing SR 167 HOT Lanes system, so the technical aspects have been tested and in use for five years to date. WSDOT now has a statewide toll office and have streamlined the operations of the toll system which has reduced the overall operations and maintenance costs of the facility. Revenue on the SR 167 HOT lanes is exceeding its operating costs. In fact, HOT lane revenue increased 80 percent overall between April 2009 and March 2012. Additionally, toll collection costs have decreased.

The preliminary engineering for this project has been completed and the design has been approved by WSDOT. Environmental documents are complete and all right of way property has been purchased. All reasonable efforts have been made to avoid or minimize impacts to the environment. Deviations to WSDOT design standards have been approved by WSDOT. A full design-build package is being prepared for RFP advertisement in February 2014. The project will open to traffic in fall 2016.

Statement of Work: Widen SR 167 to add an additional lane in each direction extending the successful SR 167 HOT lanes to nearly 15 miles in each direction. In the southbound direction the HOT lane extension will occur from where it currently ends today at 37th Street NW to the vicinity of 8th Street East in Pierce County. In the northbound direction, the HOT lane extension will occur from 15th Street SW to 8th Street East.

Major Construction Activities
Preparation: First items of work on the contract include final design of the bridge structure widening, roadway widening, mobilization of equipment and materials to the site by contractor, and clearing and grubbing of widening areas.

Grading: Work includes excavation for structure widening, and earthwork for roadway widening and drainage facilities. Also includes staking of earthwork cut and fill locations.

Drainage and Stormwater Management: Throughout the project limits, the contract will install drainage and stormwater features to handle stormwater runoff and treatment to ensure environmental standards are met. Stormwater management features of this project include detention ponds, water quality treatment facilities, floodplain storage and piped collection system.

Structures: The project will widen the southbound SR 167 mainline bridge over SR 18 to accommodate the added HOT lane and seismic retrofit the bridge to prevent collapse due to liquefaction. Seismically retrofit the northbound SR 167 off-ramp bridge to eastbound SR 18 by using column jacketing. Construct two noise walls and several sign bridges and cantilever structures to accommodate

HOT lanes signing and tolling.

Surfacing: Construct new additional lane in each direction to add 9.6 lane-miles of new lanes, and rehabilitate 21 lane-miles of existing asphalt pavement with an overlay.

Erosion Control & Planting: Throughout the construction of this project, the contract will require the installation of erosion control features to ensure that environmental standards are met. Roadside areas disturbed by construction will be restored with indigenous plantings once the work is complete.

Traffic: The project will upgrade/install the illumination system and signing within the project limits, installing four new ramp meters on the on-ramps along the corridor at 8th Street East (northbound and southbound SR 167) and Ellingson Road (northbound and southbound SR 167) and updating roadway delineation.

Tolling Infrastructure: Throughout the project limits install sign bridges and cantilever structures and conduit system to accommodate tolling system. Work will also include installing and testing the toll system.

Traffic Control: The traffic control strategy for this project is to have minimal impact to the traveling public while providing a safe area for construction crews. Temporary concrete barrier will be used to separate work zone from traffic.

b. Financial Feasibility

The total cost for this project is $99.3 million. WSDOT has secured $82.3 million in State funds (83 percent State match) to complete the design, right of way acquisition, and part of the construction for the project. To date, WSDOT has expended $8.5 million in project design, NEPA preparation, and right of way acquisition. WSDOT will use $2.6 million to complete the design build contract and final permits, leaving $71.2 million remaining for the $88.2 million construction project. This project needs an additional $17 million in TIGER Grant Funds to fully fund the construction (See Exhibits 9 & 10).

Exhibit 9: Project Funding Source Aging Plan

	Prior	2013-15				2015-17				
	Prior 2013	2014		2015		2016		2017		
Funding Sources	Prior FY 2013	FY 2014		FY 2015		FY 2016		FY 2017		Total
PE	$6,243,511	$1,300,000	$1,300,000	-	-	-	-	-	-	$8,843,511
RW	$2,275,539	-	-	-	-	-	-	-	-	$2,275,539
CN	$0	-	-	$3,286,697	$6,103,867	$24,367,200	$19,936,800	$15,750,000	$1,750,000	$71,194,564
TIGER Grant	$0	-	-	$2,800,000	$5,200,000	$4,950,000	$4,050,000	-	-	$17,000,000
Fiscal Year Total	$8,519,050	$2,600,000		$17,390,564		$53,304,000		$17,500,000		$99,313,614
Biennium Total	$8,519,050	$19,990,564				$70,804,000				$99,313,614

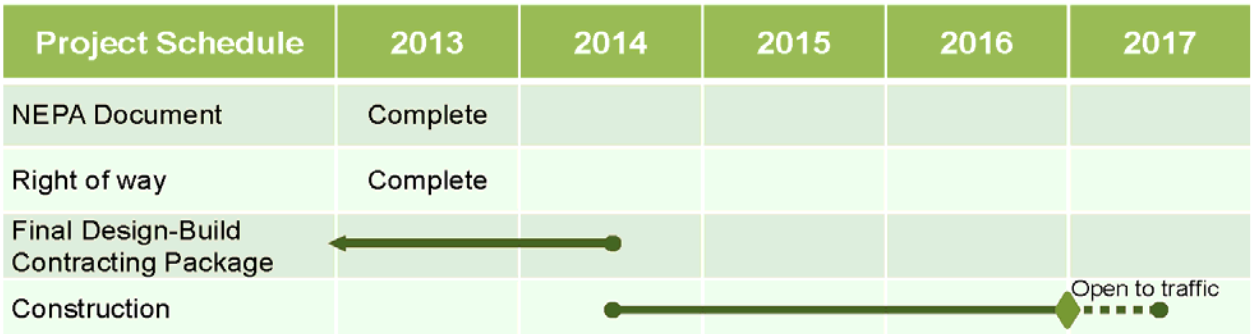
Exhibit 10: Detailed Project Cost

Major Construction Activity		Estimated Cost	% Of Project Total	TIGER Funds	State Funds
Preparation & Mobilization		$6,940,806	8%	$3,000,000	$3,940,806
Grading		$5,047,163	6%	$3,000,000	$2,047,163
Drainage & Storm Sewer		$2,900,299	3%	$2,000,000	$900,299
Structures		$15,719,715	18%	$5,000,000	$10,719,715
Surfacing		$10,813,225	12%	$4,000,000	$6,813,225
TESC and Planting		$5,283,601	6%		$5,283,601
Traffic		$7,332,116	8%		$7,332,116
Tolling Infrastructure		$6,408,000	7%		$6,408,000
Traffic Control		$4,866,505	6%		$4,866,505
Other Items		$2,102,468	2%		$2,102,468
Subtotal		**$67,413,898**			
Sales tax	9.50%	$6,404,320	7%		$6,404,320
Subtotal		**$73,818,218**			
CE	14%	$10,334,551	12%		$10,334,551
Contingency	4%	$2,952,729	3%		$2,952,729
Subtotal		**$87,105,498**			
Below the line Items (WSP, Asphalt Adjustments, etc.)		$1,000,000	1%		$1,000,000
Total CN Cost		**$88,105,498**	**100%**	**$17,000,000**	**$71,105,498**
Preliminary Engineering		$8,843,000			$8,843,000
Right Of Way		$2,276,000			$2,276,000
Total Project Cost		**$99,224,498**		**$17,000,000**	**$82,224,497**

c. Project Schedule

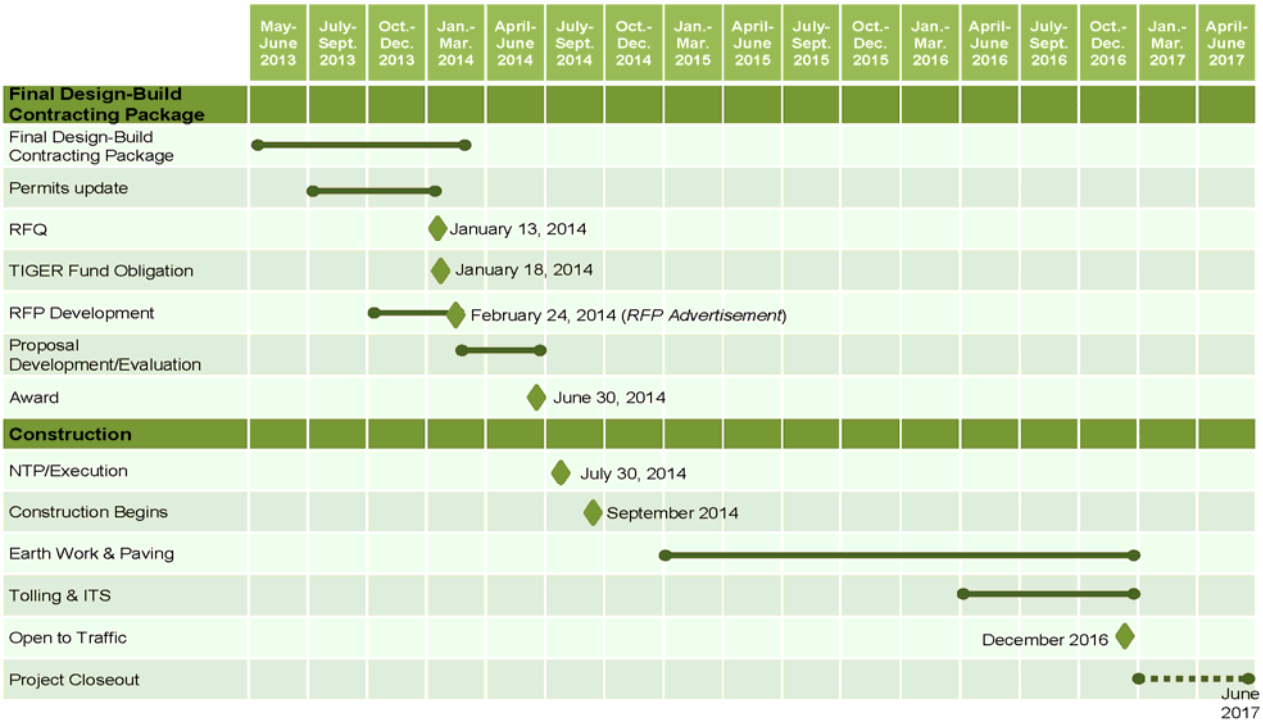
WSDOT has completed environmental documentation (NEPA Documented Categorical Exclusion (DCE) and is currently updating construction permits. WSDOT has acquired all right-of-way necessary for this project. Design-build contract procurement is underway. With the TIGER Grant funding, the project will be ready for design-build advertisement in February 2014 and awarded to a design-build contractor by June 2014. Final design and construction is scheduled to begin shortly thereafter. The project will open to traffic by fall 2016 (see Exhibits 11 & 12).

Exhibit 11: Overall Project Schedule



The following exhibit shows the SR 167, 8th Street East to 277th Street Northbound and Southbound HOT Lane Extension Project schedule for major work items.

Exhibit 12: Detailed Project Schedule



d. Assessment of Project Risks and Mitigation Strategies

Completing the remaining design and procurement activities is underway, and the project is planned to be advertised for bids in February 2014. WSDOT sees minimal risk with achieving this schedule because most of the activities normally associated with major risks have been completed. The environmental documentation (NEPA) has been completed for this project. All right-of-way necessary for this project has been acquired. Permits were obtained but some of the permits will need to be extended. Updating the permits started in May 2013 and is expected to be complete by January 2014. In addition, the project leverages more than 30 partnerships with local cities, counties and agencies.

With the TIGER grant funding, the project will be ready for design-build advertisement in February 2014 and awarded to a design-build contractor by June 2014. Final design and construction is scheduled to begin shortly thereafter. The project will be open to traffic by December 2016

WSDOT is committed to on-time delivery and is experienced in the innovative contracting method of design-build. The same project team working on the SR 167 HOT lane extension has already delivered seven design-build and four design-bid-build projects under budget and ahead of schedule.

B. Innovation

This project will use all-electronic toll collection. When there is space available in the HOT lane, solo drivers can choose to pay an electronic toll using a transponder for a faster, more reliable trip. Dynamic pricing manages traffic to allow adding just enough additional vehicles to the HOT lane to maintain speeds of 45 miles per hour or greater 90 percent of peak periods will make the carpool lane more efficient and ease congestion across all lanes, including the non-tolled general purpose lanes.

Electronic tolls are paid using the Good to Go! transponder.

SR 167 HOT lanes are reducing congestion through variable tolling. The existing SR 167 HOT lane project, the seventh HOT lane project opened nationally, uses a type of dynamic tolling where the toll rate adjusts dynamically based on real-time traffic data. This data, collected by sensors embedded in the roadway, includes vehicle speed and traffic volumes. When traffic is heavy and lane demand is high, the toll price increases, and when traffic and demand are light, the price decreases. This efficiency depends on the law of supply and demand. The expanded system will continue using variable tolling to maintain a high-speed, high-performing lane throughout more of the SR 167 corridor.

The existing SR 167 HOT lanes are carrying more traffic than ever. Overall, the average number of daily toll trips has doubled since opening. However, the price to use the HOT lanes has only increased slightly to $1.25. With HOT lanes carrying more and more traffic, general purpose lane volumes decreased. Expanding the system and extending these HOT lanes through the highly congested SR 18 interchange will greatly enhance these traffic benefits.

Extending the HOT lanes on SR 167 will allow smarter roadway management of the new capacity.

The SR 167 HOT lanes exceed the legislative requirement of maintaining average traffic speeds of 45 mph or more during peak-hours at least 90 percent of the time. In fact, the HOT lanes exceed this requirement more than 99 percent of the time. Southbound peak-hour general purpose lanes improved average speeds by 10 percent between 2007 and 2011, rising from 42 mph to 46 mph. Speeds in both directions of the HOT lanes operate slightly below the posted speed limit of 60 mph.

With the added capacity from the SR 167 HOT Lane Extension project, users of SR 167 will see a 10 mile per hour increase in general purpose lane speeds. Drivers who choose to use the HOT lanes will experience speeds increasing up to 20 miles per hour.

C. Partnership

As mentioned in the project parties section, partnerships have existed among the jurisdictions and stakeholders in this corridor since the completion of the SR 167 Corridor Master Plan in 2007. Most recently, when WSDOT convened the Executive Advisory Group (a group made up of Mayors and other elected officials and stakeholders along the SR 167 and I-405 corridor) in 2009 as part of the I-405/SR 167 Corridor Tolling Study, the Executive Advisory Group supported a robust HOT lane system on I-405 and SR 167 – creating a single continuous 40+ mile corridor. This effort led to a regionally supported interest statement that supported the extension of the SR 167 HOT lanes (See Appendix B). This coalition of partners continues to shape the long-term improvement needs in the corridor, and seeks funding to move this sustainable congestion relief project forward.

Jurisdictional and Stakeholder Collaboration

The following partner agencies were part of the I-405/SR 167 Corridor Executive Advisory Group and signatories on an interest statement to build a system of HOT/Express toll lanes on the SR 167/I-405 Corridor (see Appendix B). Many of these partners have provided letters of support for this project and have been co-leaders in actively developing solutions for the corridor. The cities along the SR 167 corridor are affordable places to live and need a reliable way to commute to job centers in Renton, Bellevue, and Seattle. HOT lanes support the corridor's Master

Plan vision for Bus Rapid Transit, which provides low-cost, reliable and frequent transit for distressed communities to reach employment centers.

WSDOT has worked closely with the agencies represented in the table below (see Exhibit 13), carrying out environmental, design, and construction activities for the Eastside Corridor Program's projects. The corridor-wide outreach and collaboration for the I-405 and SR 167 corridor Master Plans has been described previously.

The following stakeholders have written letters of support, which can be found in Appendix A:

- ✓ US Representative Adam Smith
- ✓ US Representative Denny Heck
- ✓ Representative Judy Clibborn, House Transportation Committee Chair
- ✓ Representative Jake Fey, 27th Legislative District
- ✓ Representative Laurie Jinkins, 27th Legislative District
- ✓ Representative Linda Kockmar, 30th Legislative District
- ✓ Senator Bruce Dammeier, 25th Legislative District
- ✓ Puget Sound Regional Council
- ✓ King County
- ✓ City of Auburn
- ✓ City of Bellevue
- ✓ City of Covington
- ✓ City of Kent
- ✓ City of Kirkland
- ✓ City of Sumner
- ✓ City of Renton
- ✓ City of Puyallup
- ✓ Renton Chamber of Commerce
- ✓ Sound Transit
- ✓ Port of Tacoma

Exhibit 13: Agency, Jurisdictional, and Business Support

Agency or Organization	How partnered with the project	Type of Support for Project	Letter of support (2012 or 2013) or Executive Advisory Group member
Federal Transit Administration	Executive Advisory Group Member and Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	**X**
City of Algona	Executive Advisory Group Member and Environmental process	WSDOT conducted early coordination regarding suitability of the proposed mitigation site C and its consistency with the Mill creek Special Area Management Plan. WSDOT evaluated and complies with city of Algona Critical Areas Ordinances for wetland and stream mitigation work.	**X**
City of Auburn	Executive Advisory Group Member and Environmental process	WSDOT conducted early coordination regarding suitability of the proposed mitigation site C and its consistency with the Mill creek Special Area Management Plan. WSDOT evaluated and complies with city of Auburn Critical Areas Ordinances for wetland and stream mitigation work.	**X**

City of Kent	Executive Advisory Group Member and Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	**X**
City of Pacific	Executive Advisory Group Member and Environmental process	WSDOT conducted early coordination regarding suitability of the proposed mitigation site C and its consistency with the Mill creek Special Area Management Plan. WSDOT evaluated and complies with city of Pacific Critical Areas Ordinances for wetland and stream mitigation work.	**X**
City of Puyallup	Executive Advisory Group Member and Environmental process	WSDOT conducted early coordination regarding suitability of the proposed mitigation site C and its consistency with the Mill creek Special Area Management Plan.	**X**
City of Renton	Executive Advisory Group Member and Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	**X**
City of Sumner	Executive Advisory Group Member and Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	**X**
King County	Executive Advisory Group Member and Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	**X**
Pierce County	Executive Advisory Group Member and Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	**X**
Port of Seattle	Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	
Port of Tacoma	Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	**X**
Puget Sound Clean Air Agency	Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	
Puget Sound Regional Council	Executive Advisory Group Member and Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	**X**
Sound Transit	Executive Advisory Group Member and Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	**X**
Auburn Chamber of Commerce	Corridor Neighbor	Supportive of the project	**X**
Renton Chamber of Commerce	Corridor Neighbor	Supportive of the project	**X**
SW King County Chamber of Commerce	Corridor Neighbor	Supportive of the project	**X**
Washington State Patrol	Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	
Washington State Department of Fish and Wildlife	Environmental process	WSDOT obtained Hydraulic Project Approval for in water work to extend and upgrade culverts. WSDOT agreed to all of the HPA provisions to protect fish and wildlife	
Muckleshoot Indian Tribe	Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice; In addition WSDOT exchanged detailed letters and met personally with the Muckleshoot Fisheries Division.	
Snoqualmie Nation	Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	

National Oceanic and Atmospheric Administration, National Marine Fisheries Service	Environmental process	Concurred that the project "may affect but not likely to adversely affect" Puget Sound protected species.	
National Park Service	Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	
U.S. Army Corps of Engineers	Environmental process	Issued Nationwide Permit to authorize unavoidable wetland impacts.	
U.S. Fish and Wildlife Service	Environmental process	Concurred that the project "may affect but not likely to adversely affect" Puget Sound protected species.	
Environmental Protection Agency	Environmental process	Received SEPA public notice and Construction General Stormwater Permit public notice	
Department of Archaeology and Historic Preservation	Environmental process	Received concurrence from the Department of Archaeology and Historic Preservation that no historic properties will be affected by the project.	
Washington State Department of Ecology	Environmental process	WSDOT conducted early coordination regarding suitability of the proposed mitigation site C and its consistency with the Mill creek Special Area Management Plan.	

D. Results of Benefit-Cost Analysis

The project benefits far outweigh the costs. A conservative analysis found that the benefit exceeded costs by a 2.86 to 1 ratio. The team conducted an analysis of the project travel-time saving reductions based on adopted Metropolitan Planning Organization traffic projections and operational analysis over a 20-year lifespan. Using a 3 percent and 7 percent discount rate, the benefit to cost ratios were 3.63:1 and 2.86:1 respectively (see Exhibit 14). These high ratios show the exceptional value of the project based on travel time savings and crash reductions. The project provides benefits in many areas, including emissions reductions, short and long term jobs, safety, and life cycles. Although not directly calculated, the cumulative benefits of these other elements would substantially further increase the benefit to cost ratios. Background Benefit-Cost Analysis calculations are included in Appendix C.

Delay reduction - The project would significantly reduce vehicle delay on the corridor. At opening year, the number of vehicle hours of delay would decrease by more than 2,300 hours every weekday. Opening year travel time savings equates to nearly $14 million in the first year.

Exhibit 14: Benefit-Cost Analysis Summary

Benefit-Cost Summary at 3% and 7% Discount Rates		
	3%	**7%**
Present Value Costs (PVc)	$89,174,000	$89,174,000
Present Value Benefits (PVb)	$323,976,000	$255,184,000
Benefit/Cost Ratio	3.63	2.86

V. Other Environmental Reviews and Approvals

A. Environmental Approvals

Environmental documentation in accordance with the National Environmental Policy Act (NEPA) was completed in 2008. The signed NEPA documents can be found on WSDOT's File Transfer Site:

ftp://ftp.wsdot.wa.gov/incoming/SR_167_HOT_Lane_Extension_NEPA_Documentation

B. Legislative Approvals

The Washington State Legislature funded a portion of this project – the southbound HOT lane extension from South 277th Street to 8th Street East at $82 million. The current SR 167 HOT lanes are saving people time and raising revenue for operations and future capital improvements. See letter of support from the Washington State Legislature's House Transportation Committee Chair; in addition to local jurisdictions, and businesses in Appendix A.

C. State and Local Planning

In keeping with land use plans for the region, the SR 167 HOT Lane Extension project is part of the Puget Sound Regional Council Transportation Improvement Plan (TIP) and the WSDOT State TIP.

The guiding policy document for the region, produced by PSRC in 2008, is *Vision 2040*. The SR 167 HOT Lane Extension project meets several policies in *Vision 2040* which include:

- Metropolitan Planning Policy (MPP) T-12 – "Give regional funding priority to transportation improvements that serve regional growth centers and regional manufacturing and industrial centers." The SR 167 corridor serves a number of designated regional growth centers including Tukwila (Southcenter/Sea-Tac Airport), downtown Renton, Auburn, and Kent.
- MPP-T-17 – "Ensure the freight system meets the needs of: 1) global gateways, 2) producer needs with the state and region, 3) regional and local distribution." SR 167 is a primary freight corridor in the state.
- MPP-T-28 – "Improve key facilities connecting the region to national and world markets to support the economic vitality of the region. "Thirty-three percent of the freight from the Ports of Seattle and Tacoma travel on SR 167 to Auburn and Kent on their way to the rest of the region and county.
- MPP-T-33 "Promote transportation financing methods, such as user fees, tolls, and pricing, that sustain maintenance, preservation and operations of facilities and reflect the costs imposed by users."

Transportation 2040, the regional land use planning document produced in 2010 by PSRC, emphasizes completing regional roadway systems, including the I-405/SR 167 corridor:

- "After [addressing] basic needs, the region's roadway priorities include projects that are ready to be implemented, complete missing links in the Metropolitan Transportation System, complete a well-connected freight network, **implement major transportation corridor studies**, and support growth and development consistent with adopted Growth Management Plans."
- "Transportation 2040 identifies investments to support our expected growth and improve the service transportation provides to people and businesses, lays out a financing plan that suggests a long-term shift in how we fund transportation improvements, **with more reliance on users paying for transportation improvements,** and proposes a strategy for reducing transportation's contribution to climate change and its impact on important regional concerns such as air pollution and the health of Puget Sound."
- SR 167 is specifically listed as an important part of the Ten-Year Action Strategy to "complete 125 miles of capacity enhancements, corridor improvements and key freeway missing links…."

VI. Federal Wage Rate Certification (See Appendix D)